



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

EPA Region 5 Records Ctr.



299651

**MEMORANDUM**

REPLY TO THE ATTENTION OF

**DATE:**

DEC 13 2006

**SUBJECT:**

**ACTION MEMORANDUM** - Request for a Time-Critical Removal Action at the CMC Properties Site, located in Freeport, Stevenson County, Illinois (Site ID #B5EG)

**FROM:**

Steven J. Faryan, On-Scene Coordinator  
Emergency Response Branch 2 - Section 2

**TO:**

Richard C. Karl, Director  
Superfund Division

**THRU:**

Linda M. Nachowicz, Chief  
Emergency Response Branch 2

**I. PURPOSE**

The purpose of this memorandum is to request and document your approval to expend up to \$782,981 to abate an imminent and substantial threat to public health, welfare, and to the environment at the CMC Properties Site in Freeport, Illinois. This response action is necessary to mitigate the imminent and substantial threat to public health, welfare, and the environment posed by the presence of elevated levels of lead at the Site.

This time-critical removal action will include excavation, on-site treatment with off-site disposal of the contaminated soils that pose a threat to human health and the environment. In addition, some areas along the proposed bike path where elevated lead levels have been documented will be capped with clean clay. Other activities could include assessment of nearby areas to confirm that the contaminants have not migrated off-site. The bordering wetlands, which are an ox bow lake of the Pecatonica River, have shown elevated lead levels as has the property adjacent to the site. These actions will require an estimated 45 on-site working days to complete. These actions will mitigate the potential threats to workers and the public along the proposed bike path due to inhalation, ingestion, and direct contact threats from elevated lead levels. In addition, these actions will prevent the potential for migration of the lead contamination to the wetlands and to the Pecatonica River.

The CMC Properties Site is not on the National Priorities List (NPL). This site does not exhibit any nationally significant or precedent-setting issues associated with the response action herein described.

## **II. SITE CONDITIONS AND BACKGROUND**

CERCLIS ID # ILN000510107

### **A. Physical Location and Description**

The CMC Property is a former Chicago, Milwaukee and St. Paul Railroad switching yard and railroad right of way. The property is located in the Village of Freeport, Illinois and is composed of a number of parcels that amount to 18 acres. The property is bordered by Stephenson Street to the South and Henderson to the East, several residential dwellings to the North, and the Pecatonica River to the West. The site extends south into the R Squared Construction Company property which was the former Patterson Lumber and was leased by the Railroad prior to that. The property contains several buildings, abandoned rail right of way, and consists primarily of woods and grasslands. The parcels and buildings have been leased and owned by numerous companies throughout the history of the site.

The site terrain has several areas above normal elevation, probably due to backfilling activities. The site elevation is approximately 10 to 15-feet higher on the southern banks when compared to the northern banks of the oxbow lake and wetlands. Areas along the Pecatonica River currently contain a small wetland area between the west side of the site and the river. The site is surrounded by both residential and commercial properties, including an abandoned service station.

### **B. Environmental Justice Analysis**

According to the Region 5 Superfund Environmental Justice Analysis for Illinois, the low income percentage is 27% or greater and the minority percentage is 32%. To meet the Environmental Justice (EJ) concern criteria, the area within one mile of the Site must have a population that is twice the state low income and/or twice the state minority percentage. That is, the area must be at least 54% low income and/or 64% minority. There are approximately 1,952 people who live within one mile of the Site. The minority population for the CMC Property Site is 38% and the low income population is 56%. Therefore, this Site does meet the Region's EJ criteria based on demographics as

identified in Region 5 "Interim Guidelines for Identifying and Addressing a Potential EJ Case," (June, 1998) (See Attachment 1).

### **C. Site Description and Background**

This site consists of an abandoned Chicago, Milwaukee and St. Paul railroad and switchyard property which at one time included a turn table area, a round house and several former loading platforms as indicated by the 1925 Sanborn Maps of the area. The railroad leased out several of the adjacent parcels to several oil facilities consisting of a small tank farm and underground storage tanks which operated on the site near the southeast and northeast corners of the site property. Railroad tracks, rails and the tank farm are no longer present on the site. An abandoned concrete block building that served as a service station is located in the southernmost portion of the site along Henderson Road. Remnants of several concrete foundations are present throughout the east side of the former railroad tracks.

In February 2002, a Phase I Environmental Site Assessment (ESA) was conducted by Fehr-Graham and Associates for the City of Freeport to assess the potential for use as a recreational trail. The ESA results did not exclude the possibility of the occurrence of any environmental hazards associated with the property. Some of the ESA report details are given below:

- Several oil plants historically operated on the eastern portion of property
- A bulk oil plant was identified to have operated in the westernmost parcel of the property
- A mattress factory was identified to have operated in the westernmost parcel of the property
- Underground storage tanks were once identified as being present on the site near 114 N Henderson and the Rip Track Tool house.
- The site is located in the 100-year flood plain

The City of Freeport's contractor conducted a Tier 1 investigation of the site evaluating future site development. Based on the findings of the Tier 1 investigation and comments from the Illinois Environmental Protection Agency (IEPA), four exposure routes were found to exceed the applicable Tier 1 Residential Remediation Objectives. The exposure routes that required evaluation are the Groundwater Ingestion Exposure Route, Soil Inhalation Exposure Route, Soil Ingestion Exposure Route, and the Soil Component of Groundwater Ingestion Exposure Route based on a residential exposure scenario. Presently the property is zoned for heavy industrial, but the property is to be rezoned

for recreational use.

### **III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

The conditions present at the CMC Properties Site constitute an imminent and substantial threat to the public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as amended, 40 CFR Part 300. These factors include, but are not limited to, the following:

- 1) *Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;*

The threat of human exposure to surface soils contaminated with hazardous levels of lead is present at the CMC Properties Site. The Site consists of a former railroad and leased industrial parcels. The Site is situated in a mixed residential, commercial and industrial area and is adjacent to the wetlands. The Village of Freeport will be constructing a bike trail through the area where high levels of lead have been documented. Workers building the trail and the public that will use the trail could potentially be exposed to the hazardous substances. In addition, the public has been observed rummaging through the piles looking for antique glass bottles.

Total lead is present in the waste piles and soil in concentrations up to 34,000 mg/kg and at toxic characteristic leaching procedure concentrations (TCLP) of up to 110 mg/l. The Resource Conservation and Recovery Act (RCRA) hazardous waste standard for lead is 5.0 mg/l for TCLP, making this material a characteristic hazardous waste (D008). Lead has been designated a hazardous substance pursuant to Section 102(a) of CERCLA, 42 U.S.C. 9602(a).

Lead exposure via inhalation and/or ingestion can have detrimental effects on almost every organ and system in the human body. Off-site migration of the documented hazardous waste would greatly increase the potential exposure to nearby human populations, animals, or the food chain.

The effects of lead exposure are more severe for young children and the developing fetus through exposure to a pregnant woman. The harmful effects of lead include premature births, lower birth weight, decreased mental ability in the infant, learning difficulties, and reduced growth in young children.

In adults, lead increases blood pressure, induces anemia as a result of the inhibition of hemoglobin synthesis, decreases reaction time, affects memory, and damages the male reproductive system. Lead is also considered by U.S. EPA to be a class B2 or probable human carcinogen. Reference: ATSDR 1993, Toxicological Profile for Lead. Agency for Toxic Substances and Disease Registry, Division of Toxicology. Atlanta, GA. U.S. Department of Health and Human Services, Public Health Service.

- 2) *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;*

Analytical results of soil samples collected at the Site indicate the presence of elevated levels of lead at or near the surface. High lead levels have been documented up to 34,000 mg/kg. These piles of lead are at the surface and located adjacent to the wetlands of the Pecatonica River. Elevated levels of lead have been detected in wetland sediments at up to 1,800 mg/kg.

There are currently no controls in place to prevent migration of these hazardous substances. Workers preparing the bike path and the general public who will be utilizing the bike path, may get lead contaminated soils on their shoes or boots because of the highly elevated surface lead concentrations. Workers and contractors building the bike path could potentially be exposed to contaminated soil, dust or other contaminants while grading the bike trail. The wetlands and sediment-areas are connected to the Pecatonica River and the potential for migration of the contaminants to the River exists from flooding conditions.

- 3) *Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;*

Large rain events, coupled with inadequate vegetative cover, could result in the off-site migration of the lead-contaminated surface soils and dust from the Site. The migration of lead contamination to the wetlands has been documented as shown by elevated levels of lead above 1,800 mg/kg in wetland sediments.

- 4) *The availability of other appropriate Federal or State response mechanisms to respond to the release;*

In a letter dated May 30, 2006 the Illinois EPA formally requested U.S. EPA's assistance in conducting a time-critical removal assessment and removal action at the CMC Properties Site. The Village of Freeport has asked for U.S. EPA's assistance to remediate the site prior to the construction of the Bike Trail. The State and local agencies do not have adequate resources to conduct a response action as described herein.

#### **IV. ENDANGERMENT DETERMINATION**

The CMC Properties Site contains elevated concentrations of lead in surface and subsurface soils and wetlands. Lead is present in the waste piles, subsurface soils and sediments of the adjacent wetlands at concentrations that U.S. EPA has determined pose a threat to human health and the environment. Until addressed, the lead contaminated soil poses a potential inhalation, ingestion and direct contact hazard to the public and workers preparing the proposed bike path. In addition, contaminated soils have migrated to the sediments of the adjacent wetland which is connected to the Pecatonica River.

Given the conditions at the Site, the nature of the suspected hazardous substances on Site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health or welfare or the environment.

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

##### **A. Proposed Actions**

##### **1) Proposed action description**

The On-Scene Coordinator (OSC) proposes the following actions to mitigate threats posed by the presence of hazardous substances at the CMC Properties Site:

- a) Prepare a Site work plan that describes the tasks to be performed and includes a time-line for the performance of the tasks.

- b) Develop and implement a site-specific Health and Safety Plan addressing continuous monitoring of air borne contaminants and dust control measures.
- c) Construct an access road through the site and implement Site security measures as necessary to prevent access to contaminated areas.
- d) Confirm and characterize the vertical and horizontal extent of lead contaminated soil at the Site, including any contamination that has migrated to other areas of the property and Site contamination on adjacent properties (stemming from historic activities conducted at the Site and migration of contaminants to the wetlands).
- e) Excavate, treat, and properly dispose of (in accordance with U.S. EPA's Off-Site Rule (40 CFR § 300.440)) approximately 3,000 tons of lead-contaminated soils. Soil which is above the 5 mg/l RCRA Hazardous Standard will be excavated and treated. Other soil which is not hazardous, but is above the industrial standard of 1,200 mg/kg will be capped with clean clay and seeded to prevent erosion.
- f) Properly address any excavated areas by backfilling with clean equivalent materials (backfill), and restoring excavated areas.
- g) Properly address any additional hazardous waste and/or materials identified during the removal action.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances or contaminants at the Site which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property that is disproportionate to that which the property contributes to the conditions being assessed.

The removal action will be taken in a manner not inconsistent with the NCP. The OSC has begun planning for provisions of post-removal site control, consistent with the provisions of Section 300.415 of the NCP.

**2) Contribution to remedial performance**

The proposed action will not impede future responses based upon available information. The CMC Properties Site is a non-NPL site for which remedial action has not been planned to date. The proposed removal action will address all threats meeting the NCP Section 300.415(b)(2) for an immediate removal as identified in Section III of this Action Memorandum.

**3) Applicable or relevant and appropriate requirements (ARARS)**

All applicable or relevant and appropriate requirements (ARARS) will be complied with to the extent practicable. On November 28, 2006, a letter was sent to Mr. Bruce Everetts with the Illinois EPA, requesting Illinois EPA to identify State ARARS. Federal ARARS for the Site will primarily include RCRA regulations.

**4) Project schedule**

The removal action will involve the construction of an access road and support area followed by excavation and stabilization of the waste with a lime or cement kiln dust. The stabilized waste will be staged and sampled to determine if the material is non-hazardous. If the stabilized waste is confirmed by analytical data to be non-hazardous, then it will be disposed of off-site at a locally operated Subtitle D landfill. Other areas where elevated lead soil is identified but not found to be hazardous will be capped with clean clay and seeded. The project is estimated to be completed in 45 days with 10 hour work days.

**B. Estimated Costs**

The estimated costs to complete the above actions are summarized below. Detailed Contractor costs are presented in Attachment 2.



## REMOVAL PROJECT CEILING ESTIMATE

### EXTRAMURAL COSTS:

#### Regional Removal Allowance Costs:

Total Cleanup Contractor Costs \$ 633,403  
(This cost category includes estimates for ERRS and subcontractors. 15% contingency included.)

#### Other Extramural Costs Not Funded from the Regional Allowance:

Total START, including multiplier costs \$ 47,450  
**Subtotal, Extramural Costs \$ 680,853**

Extramural Costs Contingency \$ 102,128  
(15% of Subtotal, Extramural Costs)

**TOTAL, REMOVAL ACTION PROJECT CEILING \$ 782,981**

### VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed, or no action, will increase the potential for direct exposure to lead and threaten the adjacent population, workers and the public using the bike path. No action will further the potential for off-site migration to the wetlands and Pecatonica River from rain and wind events. No action will result in the potential to exposure to the surrounding community through dust and migration of contaminants.

### VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this Site.

### VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

The total U.S. EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$1,244,795 <sup>1</sup>.

$$(\$782,981 + \$30,000) + (55.15\% \times \$812,981) = \$1,261,340$$

#### IX. RECOMMENDATION

This decision document represents the selected removal action for the CMC Properties Site located in Freeport, Stevenson County, Illinois, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site (Attachment 3).

Conditions at the Site continue to meet the NCP, Section 300.415 (b)(2) criteria for a removal action and I recommend your approval of the proposed removal action. The total estimated project ceiling, if approved will be \$782,981. Of this, an estimated \$735,531 may be used for cleanup contractor costs. You may indicate your decision by signing below.

APPROVE: Richard Kael DATE: 12-13-06  
Director, Superfund Division

DISAPPROVE: \_\_\_\_\_ DATE: \_\_\_\_\_  
Director, Superfund Division

#### Enforcement Addendum Attachments

1. Region 5 EJ Analysis
2. Detailed Cleanup Contractor Cost Estimate/Independent Government Cost Estimate
3. Administrative Record Index
4. Enforcement Addendum

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<sup>1</sup> Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States's right to cost recovery.

cc: D. Chung, U.S. EPA, 5202-G  
M. Chezik, U.S. Department of the Interior, w/o Enf.  
**Addendum**  
B. Everetts, Illinois EPA, w/o Enf. **Addendum**

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**NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION**

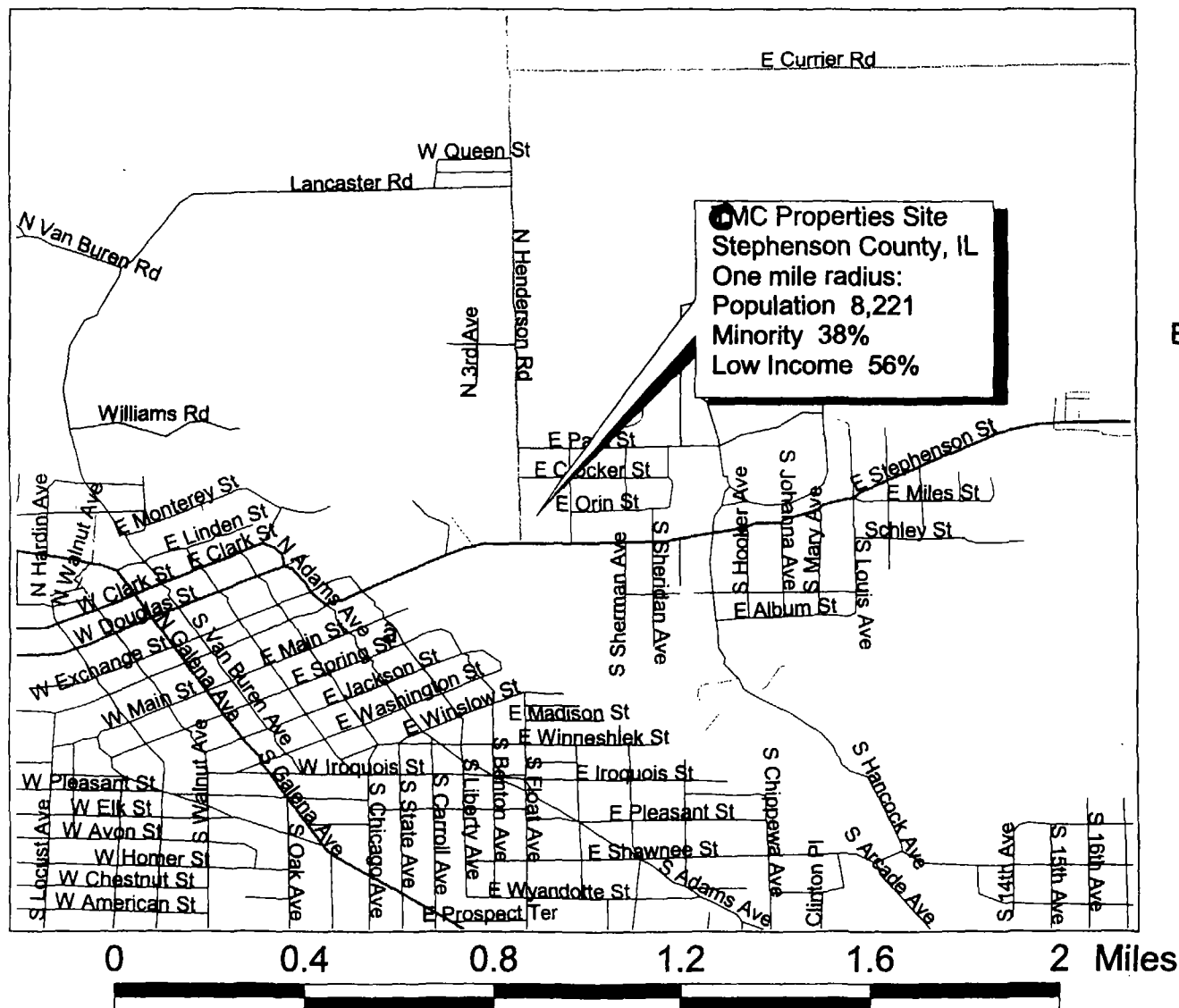
**ATTACHMENT 1**

**REGION 5 EJ ANALYSIS**

# Region 5 Superfund EJ Analysis

CMC Properties Site

Freeport, IL



State of Illinois averages:

Minority: 32%

Low Income: 27%

U.S. EPA Region 5  
Environmental Justice Case Criteria  
for State of Illinois

Minority: 64% or greater

Low Income: 54% or greater

Date of Map: 9/25/06

Source of Map: Census 2000 Database/  
ArcView 3.0

## ATTACHMENT 2

### DETAILED CLEANUP CONTRACTOR COST ESTIMATE CMC PROPERTIES FREEPORT, ILLINOIS

The estimated cleanup contractor costs necessary to complete the removal action at the Site are as follows:

Personnel	\$ 123,785
Equipment	\$ 62,350
Other Costs (analytical, etc.)	\$ 114,650
Transportation and Disposal	\$ 250,000
Total	\$ 550,785
Contingency 15%	\$ 82,620
<b>Total Clean-up Costs</b>	<b>\$ 633,403</b>

**INDEPENDENT GOVERNMENT COST ESTIMATE**

**CMC PROPERTIES SITE  
FREEPORT, ILLINOIS**

**NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION**

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## ATTACHMENT 3

### U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL ACTION

#### ADMINISTRATIVE RECORD FOR CMC PROPERTIES SITE FREEPORT, STEVENSON COUNTY, ILLINOIS

ORIGINAL  
NOVEMBER 29, 2006

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	02/00/02	Fehr- Graham & Associates	U.S. EPA	Phase I Environmental Site Assessment for the CMC Properties Site	115
2	12/00/05	Fehr- Graham & Associates	U.S. EPA	Remedial Objectives Re- port and Remedial Action Plan for the CMC Properties Site	64
3	05/05/06	Mergen, J., IL EPA	File	Memorandum re: Illinois EPA's Review of the December 16, 2005 and Revised April 21, 2006 Remedial Objectives and Remedial Action Plan for the CMC Properties Site	4
4	05/30/06	Everetts, B., IL EPA	Borries, S., U.S. EPA	Letter re: Illinois EPA's Request that the U.S. EPA Conduct a Time-Critical Removal Action at the CMC Properties Site	2
5	10/10/06	STN Environmental Joint Venture	U.S. EPA	Site Assessment Report for the CMC Properties Site w/Cover Letter ( <b>PENDING</b> )	26
6	11/28/06	Faryan, S., U.S. EPA	Everetts, B., IL EPA	Letter re: U.S. EPA's Re- quest that IL EPA Identify all ARARs for the CMC Properties Site	1
7	00/00/00	Faryan, S., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request for a Time-Critical Removal Action at the CMC Properties Site ( <b>PENDING</b> )	

**ATTACHMENT 4**

**ENFORCEMENT ADDENDUM**

**CMC PROPERTIES SITE  
FREEPORT, STEVENSON COUNTY, ILLINOIS**

**NOVEMBER 2006**

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